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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/424,760	02/03/2000	SERGEY KONSTANTINOVITCH GORDEEV	57361-57793	8547

7590 11/21/2001

YOUNG & THOMPSON
745 SOUTH 23RD STREET
SECOND FLOOR
ARLINGTON, VA 22202

EXAMINER
HENDRICKSON, STUART L

ART UNIT	PAPER NUMBER
1754	9

DATE MAILED: 11/21/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
424760	Gorbold
Examiner	**Group Art Unit**
Hendrickson	154

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

P riod for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

☒ Responsive to communication(s) filed on 9/21/01.

☒ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 18-40 is/are pending in the application.

Of the above claim(s) 18-23 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 24-40 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☒ Claim(s) 18-40 are subject to restriction or election requirement

Application Papers

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Pri rity under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☐ All ☐ Some* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. _____.

☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____.

Atta hment(s)

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Int rview Summary, PTO-413

☐ Notice of Ref rence(s) Cited, PTO-892

☐ Notice of Informal Pat nt Application, PTO-152

☐ Notic of Draftsperson's Patent Drawing Revi w, PTO-948

☐ Other _____

Office Action Summary

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 24-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A) In the formulas of claim 24, it appears that a negative number will be generated for X, given that Mc/Mk will be about .33, Pk/Pc will be between 3-8 and v will be 2. Thus, R will be greater than one, which generates a negative number.

Further, the recitation of producing pores based upon the desired use appears backwards; normally, a material is made and then characterized and then used based upon its properties.

B) In claim 24, the R equation should not have two equals signs. Also, N is not present and n is not defined. N should be v (the number of carbon atoms). See also claim 25.

C) In claim 28, there is no way to determine what the predetermined volume of transport pores is.

Claims 27 and 31are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

The claim does not recite any further step; rather merely a mathematical method for characterizing it. Similarly, claim 31 merely recites the known fact that natural gas contains methane and other hydrocarbons.

Claims 24-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Avarbz et al.

Avarbz teaches in column 10 shaping a carbide, treating it with hydrocarbon and then with halogen at 600 degrees. The reference does not teach all the details explicitly, however choosing the claimed carbide is an obvious expedient to make a carbon having good electrode properties. The nanopore distribution appears possessed- as the claims recite that this is predetermined by virtue of the selection of the carbide. It is noted that a product and its properties are inseparable; In re Swinehart et al. 169 USPQ 226. As responsible experiments are not done randomly, it is an obvious expedient to choose reactants based upon their known or expected properties. Also, claims such as 28 are not patentable; the method or rationale of *measuring* weight change does not render a process patentable when the prior art achieves the same weight change.

Concerning claim 31 and 33, column 4 line 60 teaches the claimed hydrocarbons; using natural gas is an obvious expedient as it is well known as an inexpensive source of these hydrocarbons.

Applicant should provide a statement as to whether the reference and the application were commonly owned at the time the invention was made.

Applicant's arguments filed 9/21/01 have been fully considered but they are not persuasive.

The formulas will still generate negative numbers for most carbides, as some carbides will have more than one carbon atom per metal atom. If applicant believes that v (sic:N) will always be 1, then it is not clear why the term is in the formulas. And even if applicants were correct that there is only one carbon atom, the equation would *still* yield negative numbers in many cases.

The fact that applicant has a certain utility in mind for the materials made does not make the process patentable over a reference which has a different utility in mind. In any event, claim 24 is so broadly written '... dependent upon intended use' that it in fact embraces a variety of uses, which entirely refutes applicants' own argument. That applicant may have discovered a mathematical relationship between two things does not make the process patentable; a discovery

of the workings of a known process does not make that process patentable. In other words, a discovery is not an invention per se. Finally, there is no teaching at all in applicants' specification of **how** the nanopore sizes can be predetermined- only a blanket allegation that this occurs merely by the selection of a metal off the periodic table. As both the reference and the applicants select carbides and perform processes upon those carbides, no patentable differences are seen, nor is it seen how one process 'predetermines' things while the other process does not.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to examiner Hendrickson at telephone number (703) 308-2539.

Stuart Hendrickson
examiner Art Unit 1754